

## Network ID Camera

**SP**

### Installation Instructions

NIC2-2 Quick Installation Guide (with DICOM)

for MAMMOMAT 300/3000 or  
compatible

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English

Doc. Gen. Date: 10.05

# Quick Installation Guide

For Siemens Mammomat 300/3000 or compatible



## NIC2-2 Network ID Camera

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# 1. General

This guide describes how to install and customize the Network ID Camera, herein called NIC. It is assumed that a Siemens specified setup is loaded as "Customer Default"



If a NIC shall be connected to a Local Network (LAN), a NICLan Module is needed, part no. 11101101 - Refer to the documentations included into the NICLan Module package.

If a NIC shall be connected to a DICOM server, a DICOM installation kit is required in order to have DICOM software running in the NICLan Module , part no. 11101102 - Refer to documentation included in the Triacon DICOM package.

# 2. Prerequisite

Verify that the following items are available/installed at the mammomat:

Siemens MAT-No.	Siemens VBLO-No.	Description
66 26 001	44 94 535	Printer connection kit
63 96 704	44 94 543	Isolation kit
65 61 521	44 94 568	"Triacon" Adapter cable

# 3. Unpacking

The box contains the NIC, a power cord, a converting cabel (to convert AUX1 from a RJ12 to a D-Sub 9 connector), an operator's manual and this document. The keyboard should be equipped with the country-specific keycaps.

## Notice

Verify that the correct camera version was delivered concerning the used cassette type. A standard camera handles all known cassettes with standard C1 or C1N window except Fuji cassettes with telescopic lid. Two versions are currently available:

- Standard
- Fuji - Fuji cassettes with telescopic lid, for example type EC-AWU.

# 4. Installation



The Network ID Camera is classified as a Medical Device and fulfills EN 60950.

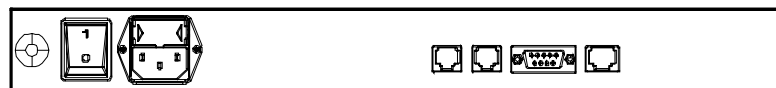
According to European Safety Regulations for Medical Equipments, the following conditions must be fulfilled:

- If the camera is operated within a distance of 1.5 m from the patient, it must be connected to the equipotential equalization device (E2D).

E2D with cable must be provided by the customer.

The purpose of the E2D is to ensure that all medical and other equipments are connected to the same ground potential. If, on installation, your Service Provider connected the camera to the equipotential busbar using the equipotential bonding plug, this connection may not be interrupted, i.e. you are not allowed to pull off the cable coming from the equipotential busbar (see illustration below).

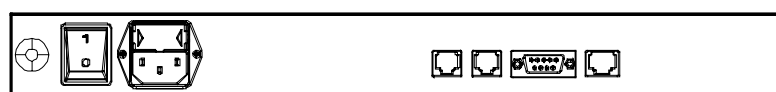
- If the camera is connected to a Medical Equipment according to EN 60601-1( e.g. safety ground or data connections) the safety standard EN 60601-1-1 has to be met and documented.



E2D plug - Connector for the cable coming from the equipoten-

Place the unit on a steady shelf or table. If the camera is operated in a mobile unit, like mammography screening buses, it should be fastened to the surface with two screws mounted from the inside of the NIC.

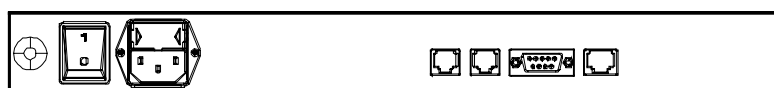
The power cord should be connected to the power receptacle on the backside of the camera and to a wall outlet.



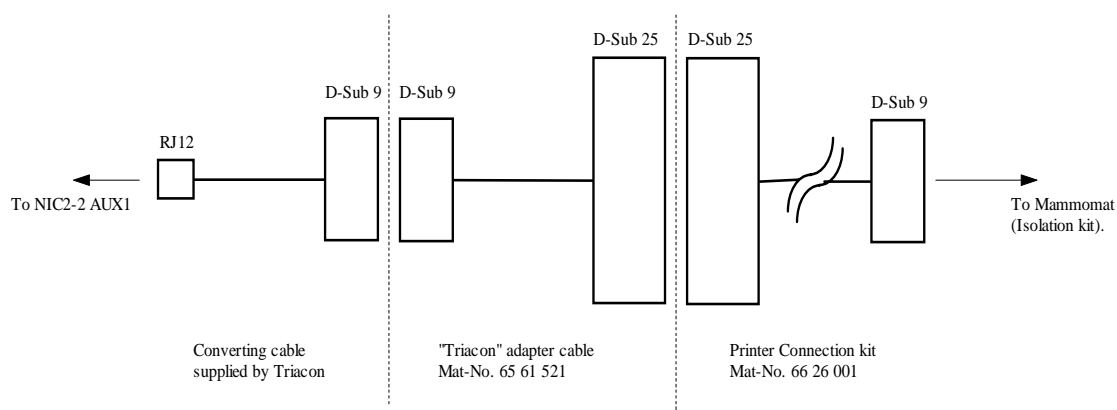
Power receptacle

**!** No voltage selection is necessary, the camera can be operated at any voltage between 100 - 250 VAC 50/60 Hz.

The communication cable should be connected to the AUX1 connector on the back of the camera and to the Mammomat via the converting cable supply by Triacon.



AUX1 connector

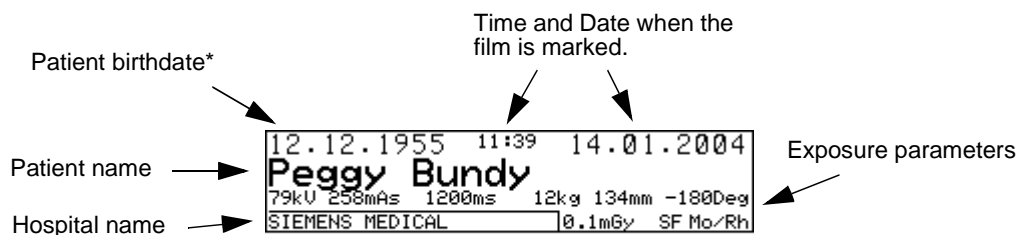


## 5. Setup

The NIC has a standard Siemens setup installed. If no changes of this layout shall be made the only thing to do is to change the hospital name, or delete it if not used. Also, if a Mammomat 300 is connected the communication protocol and active picture must be changed.

- ! From serial no. 6700 a "Customer default" function is implemented. This means that all setup parameters can be restored to its default values, i.e. same status as at delivery.
- For details, please refer to "Restore a Setup" on page 9.

The standard setup gives an image on the film located at the bottom left corner (readable). The layout for Mammomat3000 looks like this.



\*For the Scandinavian countries a Patient ID-field replaces the Birthdate field.

## 6. Hospital name and protocol settings

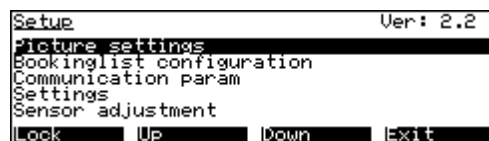
### 6.1 Enter Setup Mode

Enter Setup Mode by pressing SHIFT+F4 from main window.



Main window

After correct password has been given the setup window will appear.



### 6.2 Mammomat 3000

To prepare the NIC2-2 for a Mammomat3000 only the hospital name has to be changed.

Enter 'Picture settings\Picture Mammo3000', move the highlight bar with up- and down arrow keys, select by pressing ENTER. At position 23 of this field list one "H-



text" (Fixed text) field is present, this field is the hospital name.

No	Field	Length	Row,Col
19:	Comm	4	38,198
20:	F-text	3	38,200
21:	H-line	192	38,200
22:	U-line	10	38,193
23:	H-text	16	40,0
Place New Remove Exit			

To edit the field, just select it and press ENTER. Move the cursor with up-/down arrow keys to the 'Fixed text' field, edit the text.

Fielddefinition		Field:23
Type: H-text		
Row: 40	Column: 0	
Fixed text:	Font: Small	
General Hospital_		
		Save

When done press F4 key repeatedly until the main window appear.

### 6.3 Mammomat 300

To prepare the NIC2-2 for a Mammomat300 the hospitla name, communication protocol and active picture must be changed.

Enter 'Communication param' and change the Protocol to "MMAT300". The 'Channel' should be "AUX1" (top right corner), if not press F1 repeatedly until so. Move the cursor to the 'Protocol' with the arrow keys and change it to "MMAT300" using the F2- or F3 key.

Communication parameters Channel: AUX1	
Speed	9600
Parity	NONE
Databits	8 bits Protocol MMAT300
Channel	Previous Next Save

When done, press F4 once to save and exit 'Communication parameters.

Enter 'Picture settings\Settings Mammo3000' and set 'Status' to "Not used". This will disable the Mammo3000 picture and automatically enable the Mammo300 picture.

Settings	
Status: Used	Text: Normal
Exposure: 100 ms	Location: Bottom
Name: Mammo3000	Vert adjust: 16
	Def proj: AP
Previous Next Save	

When done, press F4 once to save and exit 'Settings.

Enter 'Picture settings\Picture Mammo300, move the highlight bar with up- and down arrow key, select by pressing ENTER. At the bottom of the field list one H-text field is present, this field is the hospital name.

No	Field	Length	Row,Col
10:	Comm	6	28,204
11:	Comm	6	37,204
12:	H-line	192	38,0
13:	U-line	10	38,193
14:	H-text	16	40,0
Place New Remove Exit			

To edit this field, just select it and press ENTER. Move the cursor with up-/down arrow keys to the 'Fixed text' field, edit the text.

Fielddefinition		Field:14
Type: H-text		
Row: 40	Column: 0	
Fixed text:	Font: Small	
General Hospital_		
		Save

When done, press F4 repeatedly until the main window appear.

## 6.4 Set Time and Date

To set the clock, press SHIFT+F1 from the main window.



Use left- and right arrow keys to select a value and adjust it by pressing F2 or F3 key.

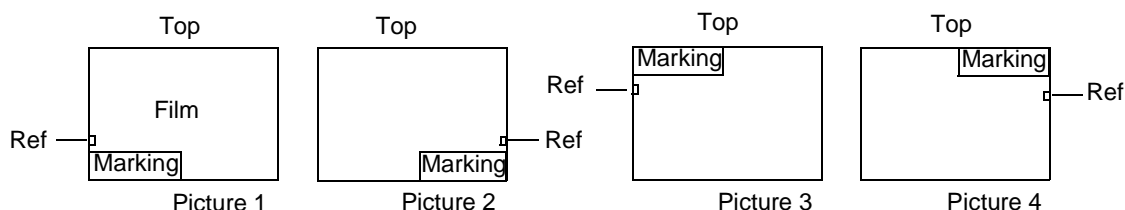
When done, press the F4 key.

## 7. Edit the standard Setup

All defined fields in this picture can be deleted or rearranged. Also, fields can be added and some of them can be edited. A breaif description of most common changes are listed bellow, for detail information please refer to the 'Installation and Setup Manual' Publ. No. 201101 and 'Network Installation Manual' Publ. No. 201100.

### 7.1 Set marking position

The marking can be placed in one of the four corners of the film. Standard setting is bottom left corner, ref. picture 1.



To change this setting, enter 'Setup\Picture settings\Settings Mammo3000 or Settings Mammo300' depending on which type of stand that is connected.



The following parameters are involved; Location, Vert adjust and Def proj. For orientation according to picture 1 to 4 above:

Picture	Location	Vert adjust	Def proj
1	Bottom	16	AP
2	Bottom	16	PA
3	Top	0	PA
4	Top	0	AP

## 7.2 Patient Birhdate/ID

### 7.2.1 B-date field

The standard setup has a Birthdate-field defined for all countries except for Scandinavian, where a Patient ID-field is defined.

The Birhdate-field has default format DD.MM.YYYY. To change it to DD.MM.YY, enter 'Setup\Picture settings\picture', select the B-date field and press enter.

Fielddefinition		Field:01
Type: B-date	Column: 0	
Row: 0		
Format: YYYY	Font: Medium	
<div> <div></div> <div>Previous</div> <div>Next</div> <div>Save</div> </div>		

Move the cursor down to 'Format', press F3 to change 'YYYY' to 'YY'. When done press F4 repeatedly until the main window appear.

### 7.2.2 Change B-date field to PID-field

If a Patient ID field is wanted instead of the Birthdate-field, enter 'Setup\Picture settings\picture', select the B-date field and press enter.

Fielddefinition		Field:01
Type: B-date	Column: 0	
Row: 0		
Format: YYYY	Font: Medium	
<div> <div></div> <div>Previous</div> <div>Next</div> <div>Save</div> </div>		

Press the P-key once while the cursor is located at 'Type' (or press F3-key until 'PID' appear.

Fielddefinition		Field:01
Type: PID	Length: 13	
Row: 0	Column: 0	
Format: Fixed	Font: Medium	
<div> <div></div> <div>Previous</div> <div>Next</div> <div>Save</div> </div>		

Move the cursor to 'Length' and set appropriate length of the PID-field. Move the cursor to 'Format' and set format to 'Free'.

**NOTE!** If the length is set to a higher value than '11' the PID-field will interfere with the Time-field which is located next to it. To solve this, please see "7.3 Move a field" below.

### 7.2.3 PID-field

The Patient ID field can be of type 'Fixed' or 'Free'.

'Fixed' means that the format is pre-defined (country dependant). This format is primary intended for the scandinavian countries. PID-field has default format YYYYMMDD-XXXX (Sweden) and DDMMYYYY-XXXX (other Scandinavian countries). To change the format to YYMMDD-XXXX (or DDMMYY-XXXX), enter 'Setup\Picture settings\picture', select the PID-field and press enter

Fielddefinition		Field:01
Type: PID	Length: 13	
Row: 0	Column: 0	
Format: Fixed	Font: Medium	
<div> <div></div> <div></div> <div></div> <div>Save</div> </div>		

Move the cursor to 'Length' and change the value to 11. When done press F4 repeatedly until the main window appear

'Free' means that the PID-field will accept any character entered.

### 7.3 Move a field

In some cases a field must be moved in favour for another field. Enter 'Setup\Picture settings\picture', select the field that should be moved, for example the Time-field, and press F1.



A new window appear where the layout of the image is shown. The highlighter field is the Time-field which was selected. Now, the highlighted field can be moved around by pressing any of the four arrow-keys. When done, press F4 to exit and save.



A field placed on top of another will cause interference.

### 7.4 Add a field

Additional field can be added. Enter 'Setup\Picture settings\picture'. Press F2, this will generate a new field (i.e. a copy of the field that was highlighted when F2 was pressed).

No	Field	Length	Row,Col
01:	B-date	10	0, 0
02:	B-date	10	0, 0
03:	Time	5	0,104
04:	Date	10	0,150
05:	Name	20	12, 0
Place New Remove Exit			

Now press 'Enter' and select 'Type', 'Length', 'Font' and 'Format' of the new field. Also the position of this field must be set. Easiest way to do this is to exit/save the settings by pressing F4 once and directly pressing F1 to move the new field in position, ref. "Move a field" on page 7.

### 7.5 Delete a field

To delete a field, enter 'Setup\Picture settings\picture'. Select the field that shall be deleted and press F3.



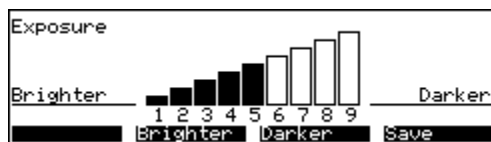
A deleted field can NOT be recovered.

## 8. Installation Test

After installation the physical connection and settings in NIC must be verified. To do so, open the patient data window by pressing the F1 key from the main window and send data from the Mammomat. If all works as expected a number of values, such as kV, mAs etc., should appear on the display. If no data appear on the display, please refer to section 'Trouble shooting'.

Now, enter patient data into the Birthdata and Name fields. Mark a film and develop it. If the marking is to dark or light use one of the following two methods to correct this.

For fine tune use the operator accessible exposure settings window. This window is accessed from the patient data window by pressing SHIFT+F4.



A higher value means longer exposure time according to the following:

1	2	3	4	5	6	7	8	9
0,5	0,6	0,71	0,84	1	1,19	1,44	1,68	2

The actual exposure time is the basic exposure time multiplied by a factor. Factory default 5 (factor = 1). The basic exposure time is set under 'Setup\Picture settings\Settings', please refer to method two below.

Note that this adjustment is intended for the user to fine tune the density of the marking. If a high (8 or 9) or low (1 or 2) value is required it is recommended that method number two is used.

Under 'Setup\Picture settings\Settings' the basic exposure time can be adjusted.

Settings			
Status:	Used	Text:	Normal
Exposure:	100 ms	Location:	Bottom
Name:Standard, C1		Vert adjust:	0
		Def proj:	AP
			Save

The exposure time can be a value between 10 and 65535. Default value is 100ms.

## 9. Communication problems

If no data is received from the Mammomat (i.e. no data is displayed on the NIC) a built in serial analyzer can be used to determine whether any data is received or not. This analyzer is connected to the HOST communication port which means that the communication cable from the Mammomat must be moved to this connector.



HOST connector

Enter Setup\Serial analyzer.

Serial analyzer																
-40:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
-32:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
-24:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
-8:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Refresh      Exit																

The analyzer is displaying all data received in HEX and in plain text using ISO 8859-1 character set.

The soft-keys are used as follows:

- Refresh, press F1 to update the window.
- Exit, press F4 to exit the analyzer
- Clear Buf, press SHIFT+F1 to erase all data in the analyzer.



Remember to move the communication cable back to the AUX1 connector after your test.

## 10. Restore a Setup

If, for any reason, a setup is corrupted, it is allways possible to restore the setup loaded at delivery (Customer Default).

Enter Setup Mode by pressing SHIFT+F4 from main window.

Date: 26.06.2001										Time:13:37:48									
Selected picture : Mammo3000																			
Manual					Booking					Memory									

Main window

After correct password has been given the setup window will appear.

Setup										Ver: 3.3									
Picture settings																			
Bookinglist configuration																			
Communication param																			
Settings																			
Sensor adjustment																			
Lock					Up					Down					Exit				

Now press Ctrl+E. This will reload all default settings into the NIC and force a restart of the unit.







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Publication No. 201105  
October 2005

